providing a second magnetic shield having a second magnetic permeability; and

assembling the first magnetic shield, the second magnetic shield, a first inductive coil, and a second inductive coil into a multi-mode wireless power transfer assembly.

12. The method of claim **11**, further comprising positioning the first magnetic shield in-between the second magnetic shield and the first inductive coil.

13. The method of claim **11**, further comprising positioning the first magnetic shield and the second magnetic shield within a common plane such that a perimeter the first magnetic shield is encompassed by the second magnetic shield.

14. The method of claim **13**, further comprising creating the first magnetic shield and the second magnetic shield with different thicknesses.

15. The method of claim **11**, wherein the first magnetic permeability is below 50μ and the second magnetic permeability is above 100μ.

16. The method of claim **11**, wherein the assembly is operable in one or more first modes of inductive wireless power transfer using the first inductive coil, and operable in one or more second modes of inductive wireless power transfer using the second inductive coil.

17. The method of claim **16**, wherein the one or more first modes of inductive wireless power transfer include a tightly coupled mode, and the one or more second modes of inductive wireless power transfer include a resonant mode.

18. The method of claim **11**, further comprising integrating the assembly into a portable electronic device.

19. An electronic device comprising:

one or more internal electronic components;

first and second inductive coils tuned to operate respectively in first and second modes of inductive wireless power transfer;

a power conversion circuit configured to power the one or more internal electronic components with electric currents induced in the first and second inductive coils; and

first and second magnetic shields respectively comprising a first permeability and a second permeability, the first and second magnetic shields configured to shield the one or more internal electronic components from magnetic fields that induce the electric currents in the first and second inductive coils.

20. The portable electronic device of claim **19**, wherein the first mode of inductive wireless power transfer includes a tightly coupled mode, and the second mode of inductive wireless power transfer includes a resonant mode.

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